

SWER 81 OF 163 BIOSIS COPYRIGHT 2001 BIOSIS  
AN 1990:518909 BIOSIS  
DN BA90:136185  
TI INVESTIGATION OF THE PATHOGEN ROLE OF THE **CANDIDA**-SPP AND  
TORULOPSIS-SPP ISOLATED FROM CASES OF CALF **DIARRHEA**.  
AU SZEGETI G; NAGY B  
CS MOSONMAGYAROVAR, LENIN U.15, 9200.  
SO MAGY ALLATORV LAPJA, (1990) 45 (7), 399-403.  
CODEN: MGALA5. ISSN: 0025-004X.  
FS BA; OLD  
LA Hungarian  
AB Yeasts were isolated from 9.2% of the intestinal or faecal samples of 600 diarrhoeal calves. None of the calves had severe abomasal or intestinal lesions. In 75% of the cases, known enteric pathogens (K99+ **E. coli**, cryptosporidia, rota or coronavirus) were also detected besides yeasts. Of the 59 isolates tested, 28 survived in the peritoneal cavity of mice and grew well at 42.degree. C. They were identified as follows: **Candida albicans** (7), **C. krusei** (6), **C. pseudotropicalis** (5), **Torulopsis glabrata** (3), **C. tropicalis** (2), **C. parapsilosis** (2), **Candida** sp. (2). **Torulopsis** sp. (1). These isolates proved to be resistant to antibiotics and sulfonamides generally used in cases of calf **diarrhoea**, including polymyxin. Based on the survival in mice, occurrence of species and growth at 42.degree. C, one representative each of **C. albicans**, **C. tropicalis** and **T. glabrata** strains were selected for calf inoculation experiments. Each strain was given orally to four healthy newborn, colostrum fed calves (1010 cells per cal), that were kept under oral polymyxin treatment for 6 to 7 days post infection, in doses of 2 millions U. All calves remained healthy during that period. Shedding of yeasts decreased in 5 to 6 days from 105 to 103 propagula/g in their feaces. Post mortem investigation of 10 to 12 days old calves revealed no adherent yeats or any characteristic alterations. The data obtained suggest that the **Candida** and **Torulopsis** strains occurring most frequently in diarrheal calves in Hungary but they do not contribute significantly to calf **diarrhoea** in healthy animals.

= d bib ab 158 1-6

L58 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2001 ACS  
AN 2000:206659 CAPLUS  
DN 132:235979  
TI Lipopolysaccharides from Escherichia coli  
IN Rietschel, Ernst Theodor; Zaehringer, Ulrich; Ulmer, Artur J.;  
Sonnenborn,  
Ulrich; Schulze, Juergen; Malinka, Juergen; Proppert, Hans  
PA Pharma-Zentrale G.m.b.H., Germany  
SQ Ger. Offen., 10 pp.  
CODEN: GWXXBX  
DT Patent  
LA German  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 19844191	A1	20000330	DE 1998-19844191	19980928

AB The lipopolysaccharide from E. coli **DSM 6601** is claimed, characterized by the combination of an O6-type O-antigen with only 1 repeating unit, an E. coli lipid A of known structure as well as a core oligosaccharide with 4 heptose, 6 glucose, and 2 galactose residues as basic components. The procedure for the prodn. and the use of this lipopolysaccharide are also claimed.

RE.CNT 6

RE

- (i) Anon; WO 9718837 CAPLUS
- (ii) Kennedy, J; Carbohydr Red 1984, V131, PS277
- (iii) Kennedy, J; Chemistry, Biochemistry and Biology 1983, PS172
- (iv) Morrison, D; Bacterial Endotoxic Lipopolysacchaudes 1992, V1, PS135
- (v) Procter, R; Handbook of Endotoxins 1984, V1, PS187

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L58 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2001 ACS  
AN 1999:350768 CAPLUS  
DN 131:1432  
TI Method for identifying Escherichia coli strain **DSM 6601**  
by PCR  
IN Hacker, Jorg; Sonnenborn, Ulrich; Blum-Oehler, Gabriele; Schulze, Jurgen;  
Malinka, Jurgen; Proppert, Hans  
PA Pharma-Zentrale G.m.b.H., Germany  
SQ PCT Int. Appl., 36 pp.  
CODEN: PIIXXD2  
DT Patent  
LA German  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9925870	A1	19990527	WO 1998-EP7398	19981118
			W: ES, EE, HU, JP, LT, LV, NO, PL, US	
			EW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,	
			PT, SE	
EF 1038035	A1	20000927	EP 1998-966241	19981118
			R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,	
			IE, SI, LT, LV, FI	
DE 19915772	A1	20000525	DE 1999-19915772	19990408
NO 2000002550	A	20000718	NO 2000-2550	20000518

PFPI DE 1997-19751243 A 19971119  
WO 1998-EP7397 W 19981118

AE The invention concerns primers for identification of *Escherichia coli* strain **DSM 6601** in PCR reactions; the primers are fragments from *E.coli* **DSM 6601** type 1 fimbria gene *fimA*, from F1C fimbria gene *focA* or from plasmids pMUT1 or pMUT2. The primers were used in a 20 cycle PCR using Taq polymerase for the identification of the *E.coli* **DSM 6601**.

PE.CNT 6

FE

- (1) Blum; Plasmid 1995, V23(4), P234 MEDLINE
- (2) Jobling, M; Database Empro 1993
- (3) Orndorff, P; Journal of Bacteriology 1985, V162(1), P454 CAPLUS
- (4) Pharma Zentrale GMBH; DE 19713543 A 1998 CAPLUS
- (5) Saiki, R; PCR technology Principles and applications for DNA amplification 1989

ALL CITATIONS AVAILABLE IN THE RE FORMAT

LS8 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2001 ACS  
AN 1999:350767 CAPLUS

DN 131:2735

TI DNA sequences of genes involved in formation of fimbriae of *Escherichia coli* strain **DSM 6601**

IN Malinka, Jürgen; Hacker, Jörg; Blum-Oehler, Gabriele; Sonnenborn, Ulrich; Schulze, Jürgen; Proppert, Hans

FA Pharma-Zentrale G.m.b.H., Germany

SO PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9925869	A1	19990527	WO 1998-EP7397	19981118
	W: CZ, EE, HU, JP, LT, LV, NO, PL, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19751242	A1	19990527	DE 1997-19751242	19971119
	DE 19751242	C2	20010208		
	EP 1032711	A1	20000906	EP 1998-962355	19981118
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, LT, LV, FI				
	NO 2000002549	A	20000718	NO 2000-2549	20000518

PFPI DE 1997-19751242 A 19971119  
WO 1998-EP7397 W 19981118

AB The *fimA* and *focA* genes of *Escherichia coli* **DSM 6601** are cloned by PCR using primers derived from the corresponding genes of strains HB101 and AD110. The genes may be of use in the identification of

*Escherichia coli*, e.g. in diagnostics or the development of probiotics.

PE.CNT 6

FE

- (1) Blum; PLASMID 1995, V23(4), P234 MEDLINE
- (2) Gabrielle, B; WO 9844134 A 1998 CAPLUS
- (3) Georg, K; DEUTSCHE MEDIZINISCHE WOCHENSCHRIFT 1998, V123(43), P1274
- (4) Kruis, W; MEDIZINISCHE WELT 1996, V47(6), PA53
- (5) Sekizaki, T; JOURNAL OF VETERINARY MEDICAL SCIENCE 1993, V55, P395 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L58 ANSWER 4 OF 6 MEDLINE DUPLICATE 1  
AU 97383443 MEDLINE  
DN 97383443 PubMed ID: 9239462  
TI Augmentation of host defence against bacterial and fungal infections of mice pretreated with the non-pathogenic Escherichia coli strain Nissle 1917.  
AU Hockertz S  
CS Fraunhofer Institute for Toxicology and Environmental Medicine, Hamburg, Germany.  
SO ARZNEIMITTEL-FORSCHUNG, (1997 Jun) 47 (6) 793-6.  
CY GERMANY: Germany, Federal Republic of  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199709 *order*  
ED Entered STN: 19970916  
Last Updated on STN: 19990129  
Entered Medline: 19970904  
AB Escherichia coli strain Nissle 1917 (**DSM 6601**, Mutaflor) was investigated for its ability to enhance the immune response against bacterial or fungal infections *in vivo*. Mice were infected intravenously with either  $6 \times 10^3$  colony forming units (cfu) of Listeria monocytogenes bacteria or  $5 \times 10^5$  Candida albicans cells. One day prior to infection, mice were treated orally with four different concentrations of E. coli strain Nissle 1917 ( $10^6$ ,  $10^7$ ,  $10^8$ , and  $10^9$  viable cells). Three days after infection with L. monocytogenes or one day after infection with C. albicans, mice were sacrificed and the parasite burden of the main target organs of the respective infection model were examined.  
The protective effect of E. coli strain Nissle 1917, compared to placebo-treated controls and to mice treated with a dose of  $10^4$ . Units interferon gamma, is shown as the reduction of viable bacteria in spleen and liver or viable fungi in the kidneys of infected animals, respectively. Orally administered E. coli strain Nissle 1917 reduced Listeria monocytogenes and Candida albicans in a dose-dependent manner. Treatment with  $10^9$  cfu of E. coli bacteria led to a reduction of Listeria counts to 7.4<sup>-</sup> in spleen and 2.4<sup>-</sup> in liver. A more than 10-fold decrease of viable Candida albicans (residual parasitaemia 6.8<sup>-</sup>) in the kidneys of the infected animals was also achieved by this E. coli concentration. These results suggest that E. coli strain Nissle 1917 is a potent immunostimulator of bacterial origin with highly protective efficacy against pathogenic bacterial and fungal infections.

L58 ANSWER 5 OF 6 MEDLINE DUPLICATE 2  
AU 97276038 MEDLINE  
DN 97276038 PubMed ID: 9129791  
TI Effect of preventive administration of a nonpathogenic Escherichia coli strain on the colonization of the intestine with microbial pathogens in newborn infants.  
AU Lodonova-Zadnikova R; Sonnenborn U  
CS Institute for Care of Mother and Child, Prague, Czech Republic.  
SO BIOLOGY OF THE NEONATE, (1997) 71 (4) 224-32.  
Journal code: A3P; 0247551. ISSN: 0006-3126.  
CY Switzerland  
DT (CLINICAL TRIAL)

Journal; Article; (JOURNAL ARTICLE)  
(RANDOMIZED CONTROLLED TRIAL)

LA English  
FS Priority Journals  
EM 199707

ED Entered STN: 19970724  
Last Updated on STN: 19970724  
Entered Medline: 19970717

AB In a randomized, double-blind study, 27 healthy newborn infants were colonized with the nonpathogenic Escherichia coli strain Nissle 1917 (E. coli **DSM 6601**, Mutaflor) during the first 5 days of life by daily oral inoculation of 1 ml of a suspension with 10<sup>8</sup> living cells. A second group of 27 newborns, used as controls, received a placebo suspension (1 ml of phosphate-buffered saline) instead. Stool samples were taken on days 1, 2, 3, 5, and 21, and 6 months after birth. All samples were examined for the presence of the nonpathogenic E. coli strain and of pathogenic and potentially pathogenic microorganisms. The administered E. coli strain was detected in the stools of the colonized newborns from day 2 and remained present throughout the study in more than 90% of these infants. Colonization with true and potential bacterial pathogens was significantly reduced in infants receiving E. coli strain Nissle 1917 compared to the placebo group--both with respect to numbers of pathogens and to the spectrum of species.

L58 ANSWER 6 OF 6 MEDLINE

DUPPLICATE 3

AN 96055303 MEDLINE

DN 96055303 PubMed ID: 8522382

TI Properties of Escherichia coli strains of serotype O6.

AU Blum G; Marre R; Hacker J

CS Institut fur Molekulare Infektionsbiologie, Wurzburg, Germany.

SO INFECTION, (1995 Jul-Aug) 23 (4) 234-6.

Journal code: GO8; 0365307. ISSN: 0300-8126.

CY GERMANY: Germany, Federal Republic of

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199601

ED Entered STN: 19960219

Last Updated on STN: 19970203

Entered Medline: 19960125

AB Escherichia coli isolates of serotype O6 show a broad spectrum of virulence: virulent strains often cause urinary tract infections; other strains are considered nonpathogenic. In order to analyze the properties of E. coli O6 strains, different phenotypic and genotypic test systems were used. Our data indicate that O6 strains represent a rather heterogeneous group of bacteria, which differ in the genotypic presence as well as in the phenotypic expression of virulence factors. In contrast to the isolates 536 (O6:K15) and RZ 475 (O6:K5) the strain **DSm 6601**, belonging to serotype O6:K5:H1, produces neither toxins nor mannose-resistant hemagglutinating (MRHA) adhesins. However, the strain possesses chromosomally located gene clusters coding for FIC (foc) and type I fimbriae (fim). In addition, the strain secretes the iron-uptake substances aerobactin and enterobactin and produces at least one microcin.

The strain is serum-sensitive and is less virulent in vivo animal tests.

bib ab 19 21 24 28 36 37 39 40 42

L72 ANSWER 19 OF 44 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.  
AN 97107718 EMBASE  
DN 1997107718  
TI Effect of preventive administration of a nonpathogenic Escherichia coli strain on the colonization of the intestine with microbial pathogens in newborn infants.  
AU Lodenova-Zadnikova R.; Sonnenborn U.  
CS Dr. R. Lodenova-Zadnikova, Institute Care of Mother and Child, Podolske nabrezi 157, CS-147 10 Prague 4, Czech Republic  
SO Biology of the Neonate, (1997) 71/4 (224-232).  
Refs: 32  
ISSN: 0006-3126 CODEN: BNEOBV  
CY Switzerland  
DT Journal; Article  
FS 007 Pediatrics and Pediatric Surgery  
010 Obstetrics and Gynecology  
017 Public Health, Social Medicine and Epidemiology  
048 Gastroenterology  
LA English  
SL English  
AB In a randomized, double-blind study, 27 healthy newborn infants were colonized with the nonpathogenic Escherichia coli strain **Nissle 1917** (E. coli DSM 6601, Mutaflor.RTM.) during the first 5 days of life by daily oral inoculation of 1 ml of a suspension with 10<sup>8</sup> living cells. A second group of 27 newborns, used as controls, received a placebo suspension (1 ml of phosphate-buffered saline) instead. Stool samples were taken on days 1, 2, 3, 5, and 21, and 6 months after birth. All samples were examined for the presence of the nonpathogenic E. coli strain and of pathogenic and potentially pathogenic microorganisms. The administered E. coli strain was detected in the stools of the colonized newborns from day 2 and remained present throughout the study in more than 90% of these infants. Colonization with true and potential bacterial pathogens was significantly reduced in infants receiving E. coli strain **Nissle 1917** compared to the placebo group - both with respect to numbers of pathogens and to the spectrum of species.

DUP

L72 ANSWER 21 OF 44 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.  
AN 94353092 EMBASE  
DN 1994353092  
TI [Treatment of chronic constipation with physiological E. coli bacteria. Results of a clinical trial on the efficacy and compatibility of microbiological therapy with the E. coli strain **Nissle 1917** (Mutaflor.RTM.)].  
BEHANDLUNG DER CHRONISCHEN OBSTIPATION MIT PHYSIOLOGISCHEN ESCHERICHIA-COLI-BAKTERIEN. ERGEBNISSE EINER KLINISCHEN STUDIE ZUR WIRKSAMKEIT UND VERTRAGLICHKEIT DER MIKROBIOLOGISCHEN THERAPY MIT DEM E.-COLI-STAMM **NISSLE 1917** (MUTAFLOR.RTM.).  
AU Mollenbrink M.; Bruckschen E.  
CS Zentrum fur Arbeitsmedizin, Zum Kortenrott 47, D-58710 Menden, Germany  
SO Medizinische Klinik, (1994) 89/11 (587-593).  
ISSN: 0723-5003 CODEN: MEKLA7  
CY Germany  
DT Journal; Article  
FS 048 Gastroenterology

037 Drug Literature Index  
LA German  
SL English; German  
AB Aim: A randomized, double-blind clinical trial including a change-over of medication was carried out for 9 weeks to investigate the efficacy of an *E. coli* preparation. The study's main objective was to prove that patients of the verum group had 1.5 stools/week more than placebo patients after a therapeutic period of just 4 weeks. Stool consistency as well as efficacy and compatibility of the medication as judged by doctor and patient were additional criteria. Patients and method: For a 7-day run-in phase 134 patients were recruited who had suffered from constipation for 18.8 years in average. In this initial phase 64 patients evacuated more than 2 stools per week and were excluded from the study. The remaining 70 patients entered the therapeutic phase being randomly distributed amongst verum and placebo medication. After 4 weeks of therapy patients who delivered 2 or less stools/week obtained the alternative medication (change-over). Results: Within the 4th week of therapy the average number of stools per week from patients treated with the *E. coli* preparation (4.9) was already significantly higher than from placebo-treated patients (2.6;  $p < 0.001$ ). At the end of the 8th week of therapy the number of stools/week rose to 6.0 for verum-treated patients, whereas for the placebo-treated control group a decrease in stool frequency was observed (1.9 stools/week). The results of change-over patients confirmed the data of the therapy weeks 1 to 4. Conclusion: The *E. coli* preparation proved to be successful in the therapy of the idiopathic chronic constipation almost free of side effects.

L72 ANSWER 24 OF 44 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.  
AN 92295861 EMBASE  
DN 1992295861  
TI Local and serum antibody response in full-term and premature infants after artificial colonization of the intestine with *E. coli* strain **Nissle 1917** (Mutaflor.RTM.).  
AU Lordinova-Zadnikova R.; Tlaskalova-Hogenova H.; Sonnenborn U.  
CS Inst. for Care of Mother and Child, Podolske natrezi 157, 147 10 Prague 4,  
Czechoslovakia  
SO Pediatric Allergy and Immunology, (1992) 3/1 (43-48).  
ISSN: 0905-6157 CODEN: PALUEE  
CY Denmark  
DT Journal; Article  
FS 004 Microbiology  
007 Pediatrics and Pediatric Surgery  
026 Immunology, Serology and Transplantation  
048 Gastroenterology  
037 Drug Literature Index  
LA English  
SL English  
  
L72 ANSWER 28 OF 44 CAPLUS COPYRIGHT 2001 ACS  
AN 1997:435442 CAPLUS  
DN 127:156325  
TI Augmentation of host defense against bacterial and fungal infections of mice pretreated with the non-pathogenic *Escherichia coli* strain **Nissle 1917**

AU Hockertz, Stefan  
CS Fraunhofer Institute Toxicology Environmental Medicine, Hamburg, D-20146,  
Germany  
SO Arzneim.-Forsch. (1997), 47(6), 793-796  
SUDEN: ARZNAD; ISSN: 0004-4172

PE Cantor  
DT Journal  
LA English

AB Escherichia coli strain **Nissle 1917** (DSM 601, mutaflor) was investigated for its ability to enhance the immune response against bacterial or fungal infections *in vivo*. Mice were infected i.v. with either 6 times. 103 colony forming units (cfu) of Listeria monocytogenes bacteria or 5 times. 105 Candida albicans cells. One day prior to infection, mice were treated orally with four different concns. of E. coli strain **Nissle 1917** (106, 107, 108, and 109 viable cells). Three days after infection with L. monocytogenes or one day after infection with C. albicans, mice were sacrificed and the parasite burden or the main target organs of the resp. infection model were exmd. The protective effect of E. coli strain **Nissle 1917**, compared to placebo-treated controls and to mice treated with a dose of 104 units interferon gamma, is shown as the redn. of viable

bacteria in spleen and liver or viable fungi in the kidneys of infected animals, resp. Orally administered E. coli strain **Nissle 1917** reduced Listeria monocytogenes and Candida albicans in a dose-dependent manner. Treatment with 109 cfu of E. coli bacteria led to a redn. of Listeria counts to 7.4\* in spleen and 2.4\* in liver. A more than 10-fold decrease of viable Candida albicans (residual parasitemia 6.8\*) in the kidneys of the infected animals was also achieved by this E. coli concn. These results suggest that E. coli strain **Nissle 1917** is a potent immunostimulator of bacterial origin with highly protective efficacy pathogenic bacterial and fungal infections.

L72 ANSWER 36 OF 44 BIOSIS COPYRIGHT 2001 BIOSIS  
AN 1997:519521 BIOSIS  
DN FREV199799818724  
TI Double-blind comparison of an oral Escherichia coli preparation and mesalazine in maintaining remission of ulcerative colitis.  
AU Kruis, W. (1); Schuetz, E.; Fric, P.; Fixa, B.; Judmaier, G.; Stolte, M.  
CS (1) Evangelisches Krankenhaus Kalk, Buchforststrasse 2, D-51103 Cologne  
Germany  
SO Alimentary Pharmacology & Therapeutics, (1997) Vol. 11, No. 5, pp.  
353-358.  
ISSN: 0269-2813.  
DT Article  
LA English  
AB Background: Aminosalicylates are used as standard treatment for maintaining remission in ulcerative colitis. As yet, there is no other existing alternative with proven efficacy. In light of the hypothesis that the intestinal environment may contribute to the pathophysiology of ulcerative colitis, a trial was conducted to test the effects of probiotic treatment with an oral preparation of non-pathogenic E. coli. Methods: A total of 120 patients with inactive ulcerative colitis were included in a double-blind, double-dummy study comparing mesalazine 500 mg t.d.s. to an oral preparation of viable E. coli strain Nissle (Serotype O6: K5: H1: for

12 weeks with regard to their efficacy in preventing a relapse of the disease. Study objectives were to assess the equivalence of the clinical activity index (CAI) under the two treatment modalities and to compare relapse rates, relapse-free times and global assessment. Results: The start and end scores of the CAI demonstrated no significant difference ( $P = 0.12$ ) between the two treatment groups. Relapse rates were 11.3% under mesalazine and 16.0% under E. coli **Nissle 1917** (N.S.).

Life table analysis showed a relapse-free time of  $103 \pm 4$  days for mesalazine and  $106 \pm 5$  days for E. coli **Nissle 1917** (N.S.). Global assessment was similar for both groups. Tolerability to

the treatment was excellent and did not differ. No serious adverse events were

were reported. Conclusions: From the results of this preliminary study, probiotic treatment appears to offer another option for maintenance therapy of ulcerative colitis. Additional support is provided for the hypothesis of a pathophysiological role for the intestinal environment in ulcerative colitis.

L72 ANSWER 37 OF 44 BIOSIS COPYRIGHT 2001 BIOSIS

AN 1997:392286 BIOSIS

DN PREV199799691489

TI Augmentation of host defence against bacterial and fungal infections of mice pretreatment with the non-pathogenic Escherichia coli strain **Nissle 1917**.

AU Hockertz, Stefan

CS Fraunhofer Inst. Toxikol. Umweltmed., Grindelallee 117, D-20146 Hamburg Germany

SO Arzneimittel-Forschung, (1997) Vol. 47, No. 6, pp. 793-796.  
ISSN: 0004-4172.

DT Article

LA English

SL English; German

AB Escherichia coli strain **Nissle 1917** (DSM 6601, Mutaflor) was investigated for its ability to enhance the immune response against bacterial or fungal infections in vivo. Mice were infected intravenously with either 6 times  $10^{-3}$  colony forming units (cfu) of Listeria monocytogenes bacteria or 5 times  $10^{-5}$  Candida albicans cells. One day prior to infection, mice were treated orally with four different concentrations of E. coli strain **Nissle 1917** ( $10^{-6}$ ,  $10^{-7}$ ,  $10^{-8}$ , and  $10^{-9}$  viable cells). Three days after infection with L. monocytogenes or one day after infection with C. albicans, mice were sacrificed and the parasite burden of the main target organs of the respective infection model were examined. The protective effect of E. coli

strain **Nissle 1917**, compared to placebo-treated controls and to mice treated with a dose of  $10^{-4}$  Units interferon gamma, is shown as the reduction of viable bacteria in spleen and liver or viable

fungi in the kidneys of infected animals, respectively. Orally administered E. coli strain **Nissle 1917** reduced Listeria monocytogenes and Candida albicans in a dose-dependent manner. Treatment with  $10^{-9}$  cfu of E. coli bacteria led to a reduction of Listeria counts to  $7.4 \times$  in spleen and  $2.4 \times$  in liver. A more than 10-fold decrease of viable Candida albicans (residual parasitaemia  $6.8 \times$ ) in the kidneys of the infected animals was also achieved by this E. coli concentration. These results suggest that E. coli strain **Nissle 1917**

is a potent immunostimulator of bacterial origin with highly protective efficacy against pathogenic bacterial and fungal infections.

- L72 ANSWER 39 OF 44 BIOSIS COPYRIGHT 2001 BIOSIS  
AN 1997:254799 BIOSIS  
DN PFEV199799554002  
TI Effect of preventive administration of a nonpathogenic Escherichia coli strain on the colonization of the intestine with microbial pathogens in newborn infants.  
AU Lodenova-Zadnikova, R. (1); Sonnenborn, U.  
CS (1) Inst. Care Mother Child, Podolske Nabrezi 157, CS-147 10 Prague 4  
Czech Republic  
SO Biology of the Neonate, (1997) Vol. 71, No. 4, pp. 224-232.  
ISSN: 0006-3126.  
DT Article  
LA English  
AB In a randomized, double-blind study, 27 healthy newborn infants were colonized with the nonpathogenic Escherichia coli strain **Nissle 1917** (E. coli DSM 6601, Mutaflor) during the first 5 days of life by daily oral inoculation of 1 ml of a suspension with 10<sup>8</sup> living cells. A second group of 27 newborns, used as controls, received a placebo suspension (1 ml of phosphate-buffered saline) instead. Stool samples were taken on days 1, 2, 3, 5 and 21, and 6 months after birth. All samples were examined for the presence of the nonpathogenic E. coli strain and of pathogenic and potentially pathogenic microorganisms. The administered E. coli strain was detected in the stools of the colonized newborns from day 2 and remained present throughout the study in more than 90% of these infants. Colonization with true and potential bacterial pathogens was significantly reduced in infants receiving E. coli strain **Nissle 1917** compared to the placebo group - both with respect to numbers of pathogens and to the spectrum of species.
- L72 ANSWER 40 OF 44 BIOSIS COPYRIGHT 2001 BIOSIS  
AN 1995:280964 BIOSIS  
DN PFEV199598295264  
TI Double-blind comparison between mesalamine (salofalk) and a preparation of viable E. coli **nissle 1917** (mutaflor) for maintenance therapy of ulcerative colitis.  
AU Kruis, W. (1); Schuetz, E.; Stolte, M.; Fixa, B.; Fric, P.; Judmaier, G.  
CS (1) Univ. Cologne, Cologne Germany  
SO Gastroenterology, (1995) Vol. 108, No. 4 SUPPL., pp. A853.  
Meeting Info.: 95th Annual Meeting of the American Gastroenterological Association and Digestive Disease Week San Diego, California, USA May 14-17, 1995  
ISSN: 0016-5085.  
DT Conference  
LA English
- L72 ANSWER 42 OF 44 BIOSIS COPYRIGHT 2001 BIOSIS  
AN 1992:637774 BIOSIS  
DN BF43:123474  
TI DEVELOPMENT OF THE AEROBIC MICROFLORA IN NEWBORNS AFTER COLONISATION WITH THE ESCHERICHIA-COLI STRAIN **NISSLE 1917**.  
AU SCHROEDER H  
CS FFAUENKLINIK DES ST.-JOHANNES-HOSP., 5800 HAGEN, GER.

SO 2ND INTERDISCIPLINARY SYMPOSIUM ON INTESTINAL MICROFLORA IN SYMBIOSIS AND  
PATHOGENICITY, ATTENDORN, GERMANY, MARCH 5-7, 1992. MICROB ECOL HEALTH  
DIS. (1992) 5 (4), V-VI.

CODEN: MEHDE6.

DT Conference

FS BR; OLD

LA English

=>

=> d bib ab 2 3

L75 ANSWER 2 OF 4 WPIDS COPYRIGHT 2001 DEPWENT INFORMATION LTD  
AU 2000-195315 [17] WPIDS  
DNC C2000-060605  
TI Composition for supplementing or replacing an immune response against  
gastrointestinal pathogens in e.g. newborn infants, comprises probiotic  
microorganisms expressing antibodies specific for the gastrointestinal  
pathogens.  
DC B04 D16  
IN FAHL, W E; LETCHWORTH, G J; LOO, D; MUELLER, G C; SAVAGE, A K  
PA (WISC) WISCONSIN ALUMNI RES FOUND  
CYC 86  
PI WO 2000006764 A1 20000210 (200017)\* EN 48p  
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL  
OA PT SD SE SL SC UG ZW  
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB  
GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU  
LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR  
TT UA UG US UZ VN YU ZA ZW  
AU 9953285 A 20000221 (200029)  
ADT WO 2000006764 A1 WO 1999-US17296 19990729; AU 9953285 A AU 1999-53285  
19990729  
FDT AU 9953285 A Based on WO 200006764  
PRAI US 1998-94697 19980730  
AB WO 200006764 A UPAB: 20000405  
NOVELTY - A composition for supplementing or replacing an immune response  
against one or more selected pathogens in individuals requiring such  
treatment comprises a probiotic microorganism genetically modified to  
express recombinant antibodies immunologically specific for at least one  
selected pathogen.  
ACTIVITY - Antibacterial; Antiviral.  
MECHANISM OF ACTION - Vaccine.  
Oral administration of the rotavirus monoclonal antibody M159  
prevents the development of the symptoms of diarrhea in mice. A feeding  
tube was used to administer a gastric bolus to 7-day old mouse pups,  
followed by an oral rotavirus challenge dose. A gastric bolus containing  
50 mu g to less than 1 mu g of M159 rotavirus antibody gave complete  
protection against the oral dose of rotavirus ( $7.5 \times 10^6$  pfus (plaque  
forming units)) that immediately followed. The unprotected pups exhibited  
100% infection at three days. A gastric bolus of 25 mu g M159 antibody  
gave complete protection against an oral rotavirus challenge ( $7.5 \times 10^6$   
pfus) administered up to 24 hours later, while control mice pups  
exhibited  
100% infection at three days.  
USE - The composition is used to supplement or replace an immune  
response against one or more pathogens, especially a gastrointestinal  
pathogen. The composition is especially used to treat newborn infant  
animals or humans, immunosuppressed or immunodeficient adults or healthy  
individuals acutely exposed to a bolus of one or more of the pathogens  
(all claimed).  
Dwg.0/6

L75 ANSWER 3 OF 4 WPIDS COPYRIGHT 2001 DEPWENT INFORMATION LTD  
AU 1999-357735 [30] WPIDS  
DNC C1999-105843  
TI Use of Escherichia coli strain DSM 6601 in veterinary

medicine.

DC B04 C03 C04 D16  
IN PROPPERT, H  
PA (FHAM-N) PHARMA ZENT GMBH  
CYC 39  
PI WO 9926642 A1 19990603 (199930)\* DE 19P  
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
W: CZ EE HU JP LT LV NO PL US  
DE 19751907 A1 19990729 (199936)  
EP 1033993 A1 20000913 (200046) DE  
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC NL PT SE SI  
NO 2000002577 A 20000718 (200047)  
CZ 2000001894 A3 20001115 (200064)  
ADT WO 9926642 A1 WO 1998-EP7389 19981118; DE 19751907 A1 DE 1997-19751907  
19971122; EP 1033993 A1 EP 1998-962353 19981118, WO 1998-EP7389 19981118;  
NO 2000002577 A WO 1998-EP7389 19981118, NO 2000-2577 20000519; CZ  
2000001894 A3 WO 1998-EP7389 19981118, CZ 2000-1894 19981118  
FRT EP 1033993 A1 Based on WO 9926642; CZ 2000001894 A3 Based on WO 9926642  
PRAI DE 1997-19751907 19971122  
AB WO 9926642 A UPAB: 19990802  
NOVELTY - Use of Escherichia coli strain **DSM 6601** in  
the preparation of a medicament used in the treatment of microbial  
induced  
diarrhea in animals involving pathogenic fungi, is new.  
ACTIVITY - Anti-diarrheic.  
MECHANISM OF ACTION - None given.  
USE - Medicaments produced using E. coli **DSM 6601**  
are used in the treatment of diarrhea in animals.  
Dwg.0/0

=> log hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	8.54	136.02
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-4.11

SESSION WILL BE HELD FOR 60 MINUTES  
STN INTERNATIONAL SESSION SUSPENDED AT 12:19:31 ON 03 MAY 2001